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Newton Raphson Method

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Algorithm

1. start
2. Define function of as f(x)
3. Define first derivative of f(x) as g(x)
4. Input initial guess b, tolerable error(e), maximum iteration (N)
5. Initialize Iteration counter i=1
6. If g(b)=0 then print "Mathematical Error" and goto (12) otherwise goto (7)
7. Calculate $m = b - \frac{f(b)}{g(b)}$
8. Increment iteration counter i=i+1
9. If i>=N then print "Not convergent" and goto (12) otherwise goto (10)
10. If |f(m)| >e then set b=m and goto (6) otherwise goto (11)
11. print root as m
12. Stop